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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Numbering Resource Optimization	)	CC Docket No. 99-200

COMMENTS OF GTE

André J. Lachance
GTE Service Corporation
1850 M Street, N.W.
Washington, D.C. 20036
(202) 463-5276

John F. Raposa
GTE Service Corporation
600 Hidden Ridge, HQE03J27
P.O. Box 152092
Irving, TX 75015-2092
(972) 718-6969

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SUMMARY

The Commission's Notice of Proposed Rulemaking ("*NPRM*") in this proceeding aptly recognizes the need for action to address the consumption and shortage of telephone numbers under the current North American Numbering Plan ("NANP"). The *NPRM*, unfortunately, focuses almost exclusively on optimization approaches. In order to reach a well-considered plan for ensuring non-discriminatory access to an adequate supply of numbers, the Commission must also examine long-term plans for the inevitable expansion of the NANP. The Commission must undertake a careful balance of the realistic costs and benefits of NANP expansion and numbering resource optimization methods in order to ensure that the steps taken provide the most benefit to consumers at the least cost. The Commission should not act hastily to deploy costly, short-term optimization plans without determining that delaying NANP expansion in fact is warranted.

In addition, the Commission should continue its role as the arbiter of the federal numbering policy. Implementation of numbering policy requires a partnership among the Commission, the states, various administrative bodies, and the telecommunications industry. There remain, however, many areas of numbering policy where it is essential that there be a well-articulated national policy. In addition, GTE believes that industry groups have a significant role to play, by carefully building consensus about standards necessary to accomplish the policy objectives. Finally, the plans and protocols adopted pursuant to the Commission's action in this proceeding—whether as Commission rules or industry standards—must be applied consistently and on a non-discriminatory basis.

The *NPRM* poses a number of questions related to administration of numbering resources, including adoption of uniform definitions, establishment of policies governing the obtaining of numbers, reporting and record-keeping requirements, the conduct of audits, enforcement activities, and the reclamation of NXX blocks. In connection with defining terms, GTE favors maintaining a uniform set of definitions reflected in industry guidelines rather than as FCC rules. Beyond that, GTE believes that carriers should not have to report specific quantities for the different types of numbers they use, but instead should report only two classifications of numbers—"In Use" and "Available." Any further detail in publicly available documents could disclose competitively sensitive information. The carrier would maintain greater detail in its own records.

With respect to assigning codes, GTE firmly believes that demonstration of need for additional codes should be based on a Months-to-Exhaust Worksheet, and not on meeting a certain utilization or fill level. It simply is not feasible to set a single, reasonable utilization rate that could apply to all carriers and code holders. Competitive and technological realities suggest that different fill levels would be required for different industry segments (taking into account numerous factors, such as geographical location), and GTE does not believe it is possible to define such targeted utilization rates on an effective, non-discriminatory basis.

Reporting requirements should be made mandatory. GTE supports the "Hybrid" reporting approach set forth in the recent recommendation of the North American Numbering Council regarding revisions to the Central Office Code Utilization Survey (known as the "*COCUS Report*"). It is essential that data submitted by reporting parties

to the North American Numbering Plan Administrator ("NANPA") continue to be treated as confidential commercial or financial information.

GTE does not believe regularly scheduled audits need to be conducted. Rather, for-cause and random audits should meet the needs for ensuring compliance with the applicable numbering policies.

NANPA should be given certain enforcement responsibilities, with appeal to the Commission possible. If the FCC adopts rules to require carriers to comply with NANPA reporting guidelines, the FCC will be able to impose sanctions on carriers that fail to submit the reporting information. Users of numbering resources that fail to comply with Commission rules or industry guidelines can be sanctioned by withholding the assignment of additional codes.

Finally, GTE opposes the Commission's efforts to shorten the time frames for code reclamation and reservation. The proposals fail to recognize business realities in managing and allocating numbering resources for end-users.

The *NPRM* also discusses specific proposals for number optimization using solutions not based on local number portability. In GTE's view, the Commission should affirmatively endorse rate center consolidation and mandate ten-digit dialing. Rate center consolidation can significantly increase NXX code availability in geographic areas that contain multiple rate centers and multiple carriers.

Mandatory ten-digit dialing likewise would have numerous benefits that would lead to more efficient use of numbering resources. The NANP is a ten-digit dialing plan, and there is no reason not to implement that dialing pattern at this time. In GTE's experience, transition to ten-digit dialing is not the difficult process everyone expects,

especially when carriers and administrators can take advantage of the perspectives gained from the experience of others like GTE.

Finally, D digit expansion should be evaluated by industry groups and the Commission. This expansion would make available additional numbers, but a range of technical and operational issues must be first resolved.

The Commission proposes "pooling" as a mechanism for addressing number shortages on an interim basis. Thousand-block pooling is feasible for wireline carriers, but should be implemented only where it significantly extends the life of the NPA (by five years after the commencement of pooling). Individual telephone number pooling and unassigned number porting, on the other hand, currently cannot be implemented, nor is there any justification for doing so. GTE opposes requiring any form of number pooling for wireless carriers.

The Commission faces significant issues in implementing pooling. For example, industry groups have concluded that it is acceptable to donate thousand-blocks with up to 10 percent contamination to the number pool, while GTE believes that any level of contamination is unacceptable. The sequential assignment of thousand-blocks to carriers can facilitate prospective implementation of number pooling, but industry guidelines must first be developed. GTE endorses the proposal to permit each of the pooling administrator and service providers to hold a nine-month inventory of numbers.

Before the Commission undertakes the task of developing cost recovery rules, it must first determine how number resource allocation and conservation should be achieved. The Commission should not at this time exclude any class of customers from sharing in the burdens imposed by pooling costs. Likewise, the Commission must

ensure that it does not adopt policies that foreclose the ability of carriers to recover costs legitimately incurred but which the Commission has already said must be excluded from cost recovery for local number portability.

Finally, the Commission asks about specific area code relief possibilities. GTE strongly believes that one of the best ways to address a telephone number shortage in the short-term is with an all-services overlay to implement a new NPA code. Area code splits impose significant costs on carriers and their customers. Overlays, however, result in important benefits without imposing the same level of costs. In addition, to ensure that an overlay is competitively neutral, it should be applied to all services, and should not be made either technology or service-specific.

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COMMENTS OF GTE

GTE Service Corporation and its below-listed affiliates[1] (collectively, "GTE") respectfully submit their comments concerning the Notice of Proposed Rulemaking in this docket.[2] As GTE details below, steps must be taken to address the crisis in the current nationwide numbering scheme. GTE urges the Commission to take action to attack the numbering problem in the context of a long term planning perspective, rather than steps that only promise a quick fix. At the same time, any solution the Commission adopts must not discriminate against or in favor of discrete industry segments or carriers and must allow all segments of the industry access to the numbering resources that they need.

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[1] GTE Alaska Incorporated, GTE Arkansas Incorporated, GTE California Incorporated, GTE Florida Incorporated, GTE Hawaiian Telephone Company Incorporated, The Micronesian Telecommunications Corporation, GTE Midwest Incorporated, GTE North Incorporated, GTE Northwest Incorporated, GTE South Incorporated, GTE Southwest Incorporated, Contel of Minnesota, Inc., GTE West Coast Incorporated, Contel of the South, Inc., GTE Communications Corporation, and GTE Wireless Incorporated.

[2] Numbering Resource Optimization, *Notice of Proposed Rulemaking*, CC Docket, No. 99-200 FCC 99-122 (rel. June 2, 1999) ("*NPRM*").

I. INTRODUCTION

The present *NPRM* is a response to the recent developments that have impacted the demand for an essential telecommunications resource—the telephone number. Since 1947, the nationwide numbering scheme has successfully provided telecommunications carriers with the numbering resources they need to route calls throughout the region covered by the North American Numbering Plan ("NANP"). As the Commission observes, however, new competitive developments have placed unforeseen and unprecedented stress on the NANP,[3] while the regulatory measures taken by many state commissions have failed to provide optimal relief. Competitively, the explosive entry of new wireline telecommunications carriers (who require blocks of numbers for each rate center they serve) and new telecommunications technologies (*e.g.*, wireless carriers), and the increased consumer demand for additional lines and access to new services (fax machines, Internet access) have dramatically increased the need for numbers. As a matter of regulatory relief, many state commissions, by insisting that the industry continue to abide by outdated paradigms of seven-digit dialing, unconsolidated rate centers, and area code[4] splits as opposed to overlays, have not allowed carriers to fully optimize the approximately 7.92 million telephone numbers that are contained in each area code.

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[3] *NPRM*, ¶ 3.

[4] Area codes are also referred to as Numbering Plan Areas, or NPAs.

One solution to this shortage of numbering resources is to introduce more telephone numbers by adding new area codes to the NANP. The costs to consumers of adding additional NPAs to the NANP, particularly when existing NPAs are split into two new geographic areas, are well known. Moreover, the rate at which additional NPAs are being added is increasing rapidly, raising the specter of NANP exhaust before the telephone number supply can be rationally and orderly expanded. For example, later this year, California will open its twenty-sixth NPA, and the California Public Utilities Commission ("CPUC") estimates that, if no conservation measures are implemented, the CPUC will be required to add an additional fifteen area codes by the end of 2002. This will result in California containing forty-one area codes by the end of that year.[5]

Against this background, the stated goal of the present *NPRM* is "to address the underlying drivers of area code exhaust" and develop solutions in response.[6] Naturally, the solution to a nationwide problem such as number exhaust will benefit most from a comprehensive, nationwide approach rather than a piecemeal state-by-state approach. While the Commission clearly must take action to address the shortage of numbers, its actions must not be hasty but be sufficiently considered. Because the NANP will have to be expanded at some future date, the Commission should engage in a realistic cost-

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[5] California Public Utilities Commission Petition for Delegation of Additional Authority Pertaining to Area Code Relief and to NXX Code Conservation Measures, NSD File No. L-99-136 (filed April 23, 1999) at 2.

[6] *NPRM*, ¶ 5.

benefit analysis of NANP expansion steps and optimization activities, recognizing that all options have costs. While the Commission seeks to achieve the appropriate balance of maximizing benefit and minimizing cost, and to the extent numbering resource optimization techniques other than NANP expansion are deployed, GTE submits, as detailed below, that a program of rate center consolidation ("RCC") and ten-digit dialing, coupled with a sensible approach to thousand-block pooling for wireline carriers will go far in addressing the underlying sources of stress on numbering resources. Further, in those instances where new NPAs must be introduced, using all-services overlays will maximize the number of available numbers while minimizing consumer costs (particularly when compared to geographic splits), and maintain a fair, unbiased, equitable numbering allocation system open to all telecommunications carriers.

II. GENERAL INQUIRIES

A. The Commission Must Obtain More Definitive Data on the Costs and Benefits of Number Optimization Versus NANP Expansion in Order To Make an Informed Decision About Effective Numbering Policy

As a matter of general inquiry, the Commission seeks comment on the cost of extending the life of the current NANP through various proposed numbering optimization strategies versus the projected cost of expanding the NANP beyond ten digits.[7] The NANP will have to be expanded at some point in time regardless of which optimization measures are implemented—the only question is when this expansion

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[7] *NPRM*, ¶ 31.

must take place. Unfortunately, until the industry decides on a specific means of expanding the NANP, it is impossible to determine the absolute or relative cost of such an effort. In addition, the benefits of optimization versus expansion from a societal perspective cannot be truly evaluated without a concrete expansion plan. Once the industry produces reliable cost estimates for expanding the NANP, a more fully informed debate can be undertaken on the merits of various NANP expansion and optimization proposals.

It is indeed possible that the cost of expanding the NANP is comparable to one or more of the optimization techniques being considered and that prompt expansion may be the alternative that most effectively maximizes the public good at the lowest cost. Regardless of the steps taken in this docket, at some time in the future the supply of numbers under the NANP will run out.[8] Thus, it may be of greater advantage to the industry and the public to gain numbering space that may never be exhausted than to expend financial and societal resources on optimization techniques that provide at most a few years of temporary relief.

GTE recommends that the Commission implement appropriate optimization measures at this time. As part of that effort, the Commission must take the lead in promulgating efficient, cost effective, and competitively neutral nationwide numbering

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[8] In terms of the longevity of the current NANP, GTE believes that the ten-year time frame suggested in the *NPRM* is not a valid estimate of the life of the NANP. *See NPRM*, ¶ 33. As discussed in Section II.B, *infra*, a more realistic study taking into consideration rate center consolidation ("RCC") and other factors would likely arrive at a more definitive—and later—NANP exhaust date.

optimization measures. Such Commission action will obviate the need for individual states to develop a series of inefficient, and possibly inconsistent, conservation schemes. Critically, the industry, the Commission, and the states must join together to approach the numbering availability problem with a long-term, nationwide planning perspective, rather than interim steps that provide temporary, often geographically-limited, relief.

At present, it appears that the telecommunications industry has been reluctant to pursue expansion alternatives based on a set of unsubstantiated cost estimates. Because these estimates are so high, the entire concept of expansion has been portrayed as something to be avoided due to its exorbitant cost. In fact, NANP expansion might not be any more expensive than the implementation of local number portability ("LNP"), which is estimated to cost the telecommunications industry at least $5 billion dollars. While the cost and effort required to implement LNP is far from trivial, the telecommunications industry, in concert with the FCC and the states, is equal to the task, and LNP is being rolled out across the nation. Similarly, the industry should at least be willing to consider the possibility of expanding the NANP, thereby relieving the numbering shortage well into the next century.

B. The NANPA's NANP Exhaust Report Contains a Number of Erroneous Assumptions

The North American Numbering Plan Administrator ("NANPA")[9] has submitted details regarding the projected exhaust of the North American Numbering Plan to the North American Numbering Council ("NANC").[10] GTE, which is a member of the review team designated by NANC to study the various models and estimates performed by Lockheed Martin to project NANP exhaust, believes that the results of this effort are flawed and misleading. Until a new, more accurate study is conducted, NANC and the Commission should not act on these results. In particular, the conclusions of the *NANP Exhaust Study* must be questioned for the following reasons:

- As described below, the forecasts developed by NANPA using its exhaust models contain many erroneous assumptions.
- As described below, the NANPA exhaust model details and underlying assumptions need to be revised to reflect the true telecommunications environment.
- The analysis must be premised on all rate centers or MTAs reflecting an environment that accounts for a more representative number of competitors, which will vary across the country based on the demographics.
- The results of the NANP forecasting model have not yet been accepted by the telecommunications industry and by the NANP member countries.
- It is incorrect and misleading to assume that NANP resources will continue to be used in the same manner as they have been in the past. The impact of number portability, rate center consolidation, "D" digit release, and other

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[9] Lockheed Martin IMS currently serves as both the NANPA and the thousand-block pooling administrator.

[10] *See North American Numbering Plan Exhaust Study*, submitted by NANPA Lockheed Martin CIS (dated Apr. 22, 1999) (*"NANP Exhaust Study"*).

optimization factors need to be incorporated in any resulting model and subsequent analysis. The existing model is very inflexible in this regard.

- The *NANP Exhaust Study* analysis of the impact of number pooling on delaying the exhaust date is suspect, given the potential financial benefit that Lockheed Martin would derive if pooling were implemented.

In order to generate a more realistic and less biased solution to the problem of number exhaust, GTE requests that NANC adopt the following recommendations:

- NANC should assign the continuation of this exhaust study to an existing industry group or workshop.

- The industry group should be asked to present periodic reports to the NANC on the progress of its work, taking into account how its projections match with actual Central Office Code Utilization Survey ("COCUS") data.

- The industry group should be directed to incorporate selected optimization methodologies into its studies. The resulting analysis should include, at a minimum, the impact of pooling, rate center consolidation, and "D" digit release on any potential NANP exhaust scenarios.

- A cost analysis should be conducted for any recommendation or set of alternatives proposed by the industry group.

By implementing such efforts, GTE believes it would be possible to develop more reliable projections about exhaust of the NANP and to reach an industry understanding regarding a more acceptable, practical solution to the numbering issues confronting the markeplace.

C. The Solutions Arising Out of This Proceeding Must Be Uniformly Applied

The Commission queried whether the number optimization solutions arising out of this proceeding should be incorporated into industry guidelines or the Commission's

rules.[11] GTE believes that the adopted measures should be incorporated into industry standards or guidelines that are implemented on a consistent, fair, and equitable basis for all carriers. For example, the methodology for pooling administration must be incorporated into industry guidelines. This would provide all interested parties with an opportunity to supply input in shaping these policies and ensure that the final methodology is implemented in a uniform, non-discriminatory manner.

While it may be necessary to codify certain specific measures as Commission rules, GTE prefers to minimize the number of federal mandates that are imposed on the industry. Moreover, if policies are embodied in federal rules, each change in technology and competition would likely require the Commission to launch a rulemaking proceeding, which could delay timely responses to such developments. Industry guidelines provide the industry more flexibility to meet new challenges.

Finally, organizations and forums such as the Industry Numbering Committee ("INC") and the T1 Committee should be responsible for formulating the detailed guidelines and standards. Not only do these bodies operate on a consensus basis, they also use appropriate due process[12] and give fair consideration to all members' points of view. GTE believes it is important that numbering policies—whether promulgated by this Commission or various industry bodies—be based on industry

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[11] *NPRM*, ¶ 35.

[12] Specifically, INC and the TI Committee ensure that members have an adequate period of time to review the proposals under consideration and comment on these proposals.

consensus that takes into account the diverse experiences and perspectives of members of the telecommunications industry. This will lead to the development of more effective, realistic approaches to allocating NANP numbering resources.

III. ADMINISTRATIVE MEASURES

A. Definitions of Categories of Number Usage

The Commission seeks comment on whether it should codify uniform number status definitions as part of the Commission's rules, or instead make these definitions part of the CO Code Guidelines and the Thousand Block Pooling Guidelines, as suggested by INC.[13] GTE is in favor of maintaining a uniform set of definitions as industry guidelines rather than FCC rules. If these definitions are codified in the Commission's rules, any future modification will require an FCC rulemaking, rather than mere consensus by industry standards-setting bodies. As suggested above, industry bodies may be able to respond more quickly to technical and other developments, and thus modify the definitions more easily and efficiently than through a formal rulemaking proceeding. At the same time, it would be useful if the Commission adopted rules that endorse the industry guidelines that are in effect without limiting the ability of industry groups to change the term definitions.

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13 *NPRM*, ¶ 40.

The *NPRM* further requests comment on a number of specific proposed number status definitions. GTE sets forth the following comments on these proposed definitions:

Employee/official numbers. Comment is first sought on the types of internal business purposes for which carriers use employee/official numbers.[14] These numbers are assigned to employees of service providers and/or authorized agents of service providers to be used in the demonstration of service, test of services and facilities, and business communications. Reservations of employee/official numbers should follow the same guidelines as reserved numbers.

Test numbers. The FCC also seeks comment on the purposes for which carriers use test numbers, and whether the definition of test numbers should be tightened by specifying appropriate and inappropriate uses for such numbers.[15] For the reasons stated below, the Commission should be extremely cautious in defining "test numbers" too narrowly, especially for CMRS providers. CMRS providers rely on the use of test numbers that are stationary as well as mobile. Mobile test equipment does not require a standard reservation from the number plan but does require the use of numbering resources even though the numbers may appear random. These numbers are tied to test equipment that may monitor radio signals and perform audio testing, handoff testing, field strength testing, call routing testing, facilities testing, and

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[14] *NPRM*, ¶ 41.

[15] *NPRM*, ¶ 41.

verification of billing. These capabilities are critical to the operation and quality of the CMRS network.

For the purpose of number utilization, test numbers should be inventoried as assigned. These numbers are necessary to the functioning of networks, even if they are not assigned to an end-user.

Aging numbers. The Commission seeks comment on the standard aging intervals currently used by carriers, as well as on whether it should set limits on the amount of time a number may remain in "aging" status.[16] For GTE, the standard aging period is 90 days for numbers formerly used by wireline residential customers and 365 days or the life of the directory in question for business customers. In addition, GTE applies a reduced aging interval in number shortage situations. GTE believes that: (1) standard aging intervals should be established for all carriers; (2) separate aging intervals should be applied for numbers previously used by residential customers and those previously used by business customers; and (3) in the case of business customers, consideration should be given to their yellow pages advertising. GTE therefore recommends the adoption of an aging interval of 90 days for wireline residential customers and the life of the directory for business customers. Finally, for CMRS customers, intervals should be no less than 90 days to account for billing cycles.

Assigned numbers. GTE opposes the Commission's proposal to revise the definition of an assigned number to limit the time during which a customer service order

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16 *NPRM*, ¶ 42.

may be considered to be "pending" (*e.g.*, 3 to 5 days)[17] for large business customers. Such a limitation would be inconsistent with commercial realties. Typically, large business customers have a need to reserve their numbering requirements up to one year prior to activating service, given the long planning cycle related to building construction, hiring new personnel, and office relocation plans. Thus, it is necessary to hold numbers for these patrons for up to one year in order to meet the on-time demand when service is actually provisioned.

Dealer numbering pools. Comment is also sought on how dealer numbering pools should be treated, and what, if any, limitations should be imposed in connection with assigning numbers to dealer numbering pools.[18] GTE believes that dealer numbering pools should not be considered assigned numbers because the telephone numbers are not assigned to customers. Instead, dealer numbering pools should be treated as unassigned numbers and available while in the dealer's inventory.

Ported-out numbers. Regarding ported-out numbers, the Commission seeks comment on how the porting carrier and the ported-to carrier should treat these numbers for reporting purposes.[19] GTE recommends that in a thousand-block pooling environment, the block holding carrier should have the responsibility of reporting the use of these numbers. In non-pooling areas, the code holder should be responsible for

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17 *NPRM*, ¶ 43.

18 *NPRM*, ¶ 44.

19 *NPRM*, ¶ 45.

reporting. The ported-out numbers should be reported as unavailable for assignment by the code/block holder while they are ported because these numbers are part of the code/block holder's original number inventory. The recipient carrier should not be required to report on ported-in numbers because these numbers will be returned automatically to the native carrier when no longer in use. Further, in order to avoid double reporting, ported-in numbers should not be counted in the determination of a ported-to carrier's inventory.

Reserved numbers. The FCC also seeks general input on how reserved numbers are categorized and specific input on MCI/WorldCom's proposal that a "reserved number" be defined as a number set aside by a service provider under the provisions of a legally enforceable written agreement at the request of a specific customer for future use.[20] GTE believes that carriers should count customer requested number reservations as available inventory when the carrier does not charge the customer for this service. Carriers must, however, retain flexibility to reserve numbers for customers whose historical utilization level and forecasted line growth indicate a reasonable expectation of number utilization. In addition, CMRS carriers should be permitted to reserve numbers that will, in rare circumstances, be programmed into handsets during the manufacturing process.

MCI/WorldCom's proposal is inadequate for two reasons. First, the definition does not recognize the need to allocate numbers in request for proposal ("RFP")

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[20] *NPRM*, ¶ 48.

situations. Such RFPs typically have long sales cycles and require commitments of telephone numbers to meet future contract requirements that may not be realized for 18 to 24 months. Second, the definition requires a written agreement to support number reservation. In GTE's view, the agreement should be legally enforceable, but it may not be reflected in a comprehensive written document labeled "agreement." Many legally enforceable agreements regarding the reservation of numbers are not written down in their entirety, but can be reconstructed through a record of the discussion between the parties as well as their correspondence.

Soft dial tone numbers. Regarding soft dial tone numbers, the Commission queries the purposes for which carriers use soft dial tone, and whether these numbers are best categorized as a subset of administrative numbers.[21] Soft dial tone numbers represent a convenient method by which customers can establish service with their carrier (*e.g.,* carrier business office) and allow access to public safety agencies (*e.g.,* 911). Therefore, GTE believes that assignment of numbers for soft dial tone should continue to remain available at the discretion of each carrier. These numbers should be identified as available in utilization reports.

Working telephone numbers. The FCC also seeks comment on whether the definition of working telephone number should include temporary local directory numbers ("TLDNs") and whether the definition of working telephone number should be

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21 *NPRM*, ¶ 50.

included in a comprehensive set of telephone number status definitions.[22] GTE recommends that there only be two classifications for numbers for reporting purposes: "In Use" and "Available." "In Use" would be comprised of working numbers for an end-user customer or the carrier (*i.e.*, administrative, Location Routing Number, and test numbers), numbers pending to be placed in service through order activity, number blocks provided to resellers, ported-out numbers, and numbers in aging status. All other numbers—including non-order reservation numbers and soft dial tone numbers—would be considered "available." Ported-in numbers should not be included in either category to avoid the possibility of double counting.

Temporary local directory numbers should be considered assigned and working numbers because TLDNs must be dialable numbers and cannot be shared with more than one subscriber at any given time.[23] In particular, TLDNs are isolated blocks of numbers, usually 100 number blocks within a particular mobile switching center, that are assigned to roamers as a temporary way to identify them when the roamer is in the roamed-upon carrier's service area. Thus, while a TLDN may have multiple assignments during any given day, a TLDN may only have one assignment at any given moment. Each carrier's goal in assigning TLDNs is to ensure that the carrier meets quality of service standards, avoiding "fast busy" signals. Similarly, any number

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[22] *NPRM*, ¶ 53. In addition, the Commission seeks comment on whether the phrase **unavailable for assignment** promotes the FCC's numbering optimization objectives, or whether it should be narrowed, possibly by excluding reserved numbers. *NPRM*, ¶ 52.

[23] TLDNs are temporally assigned to individual roaming parties for call completion.

assigned for the purpose of signaling identification or location should be treated as assigned.

Finally, the Commission should consider the situation of what GTE will call "Transitional Office Codes." Transitional Office Codes are CO codes that have been marked for return to the NANPA due to a duplicate CO code having been assigned as a result of a geographic area code split. The duplicate CO code is part of the new area code and is in the process of transition to full service. COCUS and Months-to-Exhaust reports should identify these Transitional Office Codes as separate fields from "available" numbers, and carriers should not report both Transitional Office Codes and the CO codes in the new area code as "available" for assignment. This duplication in reporting results in understating a carrier's utilization level, in addition to distorting the COCUS report's ability to predict the exhaust of the old area code (which will have Transitional Office Codes returned for re-assignment).[24]

B. Verification of Need for Numbers

1. Initial codes

The FCC seeks comment on what type of showing would be appropriate with respect to an applicant's ability to obtain initial CO codes.[25] It is GTE's understanding

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[24] This oversight has resulted in a significant understatement of carriers' number utilization and may have contributed to the NANPA's erroneous conclusion that the NANP is near exhaust.

[25] *NPRM*, ¶¶ 58-59.

that it is the NANPA's responsibility to verify the certification of all carriers requesting codes. To allow NANPA to verify this status, fully certified applicants should be required to submit evidence of their license/certificate with their applications for initial codes. Similarly, applicants awaiting state certification should be required to submit evidence that they have applied for such certification when applying for initial codes, and then submit evidence of their license/certificate when it has been granted.

2. Growth codes and verifying need

GTE further agrees with the Commission's tentative conclusion that "NANPA may not allocate additional numbering resources to an applicant, unless the applicant has made a satisfactory demonstration of need."[26] This demonstration of need should be based on a Months-to-Exhaust Worksheet.[27] At the same time, the NANPA should evaluate requests for multiple code assignment in light of the requesting carrier's past history.

The Months-to-Exhaust Worksheet should be used as a proxy for need. GTE opposes reliance on utilization standards as a basis for assigning additional numbering resources. It is essential that carriers **not** be precluded from requesting growth codes until they have achieved a certain utilization level in an area. Fill rates are historical in

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[26] *NPRM*, ¶ 60.

[27] *See NPRM*, ¶ 61. Because the current Months-to-Exhaust Worksheet is ambiguous, subjective, and not in a form that is easy to calculate or consolidate, GTE believes that it should be substantially revised.

nature and do not necessarily reflect a carrier's actual current need for telephone numbers.

In addition, due to seasonal demands for service, use of numbers is not linear from month to month. Rather, seasonal adjustments must be made in forecasting future number requirements. For example, due to holiday gift giving, wireless subscriber growth during the month of December is typically equal to any other three contiguous months. Not being able to account for this historical seasonal growth could leave a carrier with inadequate numbering resources, thereby resulting in customer dissatisfaction and a consequential decline in the carrier's ability to operate a successful business. Moreover, carriers might be forced to place aging numbers back into service too soon.

Low utilization in an NPA should not preclude a carrier from obtaining codes using the Months-to-Exhaust Worksheet. At the same time, carriers that continue to request codes while having low utilization rates should be required to submit additional detail and justification to the NANPA before receiving such codes. The NANPA should be given clear guidelines regarding the uses of the utilization report versus the Months-to-Exhaust Worksheet. In particular, GTE believes the utilization report is an effective tool for the NANPA and the state commissions to monitor CO code exhaust within an NPA, while the Months-to-Exhaust Worksheet should serve as a proxy for CO code relief.

Rather than basing numbering allocation on utilization rates, carriers should be permitted to maintain a 12-month supply of numbers, and should their inventory fall below this level, they should be allowed to obtain additional resources. The NANPA

should further monitor carriers and determine if their forecasts have historically been reasonable. If not, absent a compelling reason, the NANPA should be able to deny issuing a code, delay the effective date of the assignment, or request additional information to insure the specific request is valid.

3. Setting a utilization rate

The FCC specifically sought comment on whether a percentage utilization threshold should be adopted, and if so, on the appropriate level for that threshold.[28] GTE believes that, because such a scheme would be extremely difficult to implement, it should not be adopted. In particular, due to technological[29] and competitive[30] constraints, each industry segment has differing abilities to utilize numbering resources. Therefore, it seems that segment-specific utilization percentages would have to be

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[28] *NPRM*, ¶ 63.

[29] For example, wireless carriers can achieve much higher fill rates than wireline carriers because wireline carriers must have CO codes in each rate center, while wireless carriers are not always constrained by the rate center paradigm. Similarly, wireline carriers in urban areas can often achieve higher fill rates than those in rural areas because each urban rate center is more densely populated, and therefore contains more potential customers.

[30] Using percentage utilization thresholds is particularly problematic in high growth areas, because it takes approximately three months to request and implement a new CO code (assuming no jeopardy situation or lottery exists). Thus, if a carrier in a high growth area is forced to wait until a specific percent utilization is reached before requesting more numbers, that carrier might exhaust its numbering supply before a new code could be obtained and put into service. Therefore, at a minimum, in these high growth areas, the NANPA should utilize Months-to-Exhaust Worksheets and the past history of the specific carrier, rather than percentage utilization thresholds, in order to allocate numbers on a fair basis.

developed. At the same time, segment-specific utilization standards might be viewed as discriminatory by some carriers.

GTE thus does not believe it is possible to establish specific percent utilization factors for each geographic area or industry segment that would result in the more efficient utilization of numbering resources. Even attempting to establish different equivalent thresholds for different companies, geographic areas, and industry segments would require the development of new mathematical models and the collection of a tremendous amount of data. As such, the cost to the industry and the Commission would be enormous. Finally, given the constantly changing competitive and technological environments, such thresholds would need to be continually adjusted, again unnecessarily taxing the resources of the telecommunications industry and the FCC.

C. Reporting/Record-keeping Requirements

1. Mandatory data submission requirement

GTE supports the Commission's tentative conclusion to mandate that all users of numbering resources supply forecast and utilization data to the NANPA.[31] Without such data, it will be impossible accurately to predict when NPA exhaust will occur. GTE also endorses the process of providing this data to the NANPA as a single point of contact and that state authorities should only obtain aggregated data from the NANPA to assist

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[31] *NPRM*, ¶¶ 73-74.

in code relief activities. Finally, GTE supports general reliance on the reporting structure and obligations described in the *COCUS Report*.[32] GTE, however, does disagree with the *COCUS Report* regarding reporting responsibilities and suggests the alternative recommendation that all thousand-block codeholders should be responsible for reporting their code utilization and forecast data to the NANPA. This alternative is preferred because these codeholders have the best access to this data.

2. Specific data elements

The FCC queries whether any modifications should be made to improve the quality and accuracy of carriers' demand forecasts.[33] GTE does not feel that significant changes need to be made to the existing COCUS report. Requiring all carriers to submit COCUS reports or not be eligible for receipt of numbering resources should improve the demand forecasts and the number of carriers submitting the report. GTE also agrees with the Commission that consistent utilization tracking and the ability to audit forecasts after the fact will significantly improve the quality of forecasts.[34] Although it is important that forecast data be as accurate as possible, GTE does caution against too much reliance on this data because it reflects each company's business plan. As such there is a high probability that multiple companies have built

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[32] Recommendation of the North American Numbering Council Concerning the Replacement of the Central Office Code Utilization Survey at 33-34 (filed June 30, 1999) ("*COCUS Report*"). *See* discussion in Section III.B.3, *infra*.

[33] *NPRM*, ¶ 75.

[34] *NPRM*, ¶ 75.

business cases based on their winning the same customers. This competitive optimism will result in the forecasts being consistently overstated. This overstatement is, however, simply a fact of the new competitive environment and not an attempt by any particular carrier to mislead the NANPA, unless they consistently do so.

3. Specificity of data, frequency of reporting, and cost of data collection activity

The FCC seeks comment on the level of granularity with which utilization and forecast data should be reported, the frequency with which carriers should be required to report their data, and the additional costs that will arise out of any more detailed and frequent reporting obligations.[35] GTE supports the "Hybrid" approach recommended in the *COCUS Report* in general, and particularly endorses the Hybrid approach's adaptation of reporting requirements to the level of usage in an NPA. Thus, the Hybrid model would give the NANPA the ability under certain circumstances to gather information at a more granular level than currently reported and at more frequent intervals when necessary.[36] The specific levels of reporting granularity should be: (1) in a pooling area—NPA-NXX-X; (2) in a non-pooling area within an exhaust window—NPA-NXX; and (3) in a non-pooling area outside an exhaust window—NPA. GTE believes that use of the Line Number Utilization Survey ("LINUS") is unnecessary, and there has been no justification for expending the increased quantity of industry

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35 *NPRM*, ¶¶ 76-77, 79.

36 *COCUS Report* at 33.

resources that complying with LINUS's more detailed reporting requirements would require.[37]

Similarly, GTE supports the reporting frequency requirements noted in the *COCUS Report*: (1) in a pooling area—semi-annual; (2) in a non-pooling area within an exhaust window—semi-annual; and (3) in a non-pooling area outside an exhaust window—annual. GTE further agrees with the *COCUS Report's* statement that "if an NPA has less than five years to exhaust, then service providers in that NPA must report on a semi-annual basis. The [Numbering Resource Optimization Working Group] also recommends a provision for the NANPA to call for semi-annual reporting in NPAs in which a significant increase in code consumption is over and above what was projected, *e.g.*, 25%, within the reporting interval."[38]

With regard to the cost of collecting data, GTE feels that the major cost may be in the ability of the NANPA to assimilate and review large quantities of numbers. For example, a report of thousand-block utilization levels in a single NPA where all NXXs are assigned would take up 7,920 lines or approximately 145 pages of data. Given the amount of administrative resources required to absorb this new data, GTE believes that the selection of sites for analysis should be limited to areas where NPA exhaust and relief planning are underway. In areas that are primarily rural or areas not forecast for exhaust in the next few years, little is to be gained from detailed analysis. Further, the

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37 *NPRM*, ¶ 81.

38 *COCUS Report* at 33.

more frequently the data is requested, the more expenses will be incurred, since carriers need to generate and verify the data. Therefore, GTE recommends that data only be gathered at six month intervals rather than four month intervals. Given the need to track carefully the use of telephone numbers, GTE also believes that the same obligation to provide data should be imposed on all service providers within an identified NPA being studied, regardless of their size.

4. Confidentiality of data

Comment is also sought on what, if any, special provisions should be established to protect the confidentiality of data disclosed to the NANPA, the FCC, and/or state commissions.[39] Based on its correspondence with the NANPA, it is GTE's understanding that all data that it submits to the NANPA is to be treated as confidential "commercial or financial" information pursuant to Exemption 4 of the Freedom of Information Act ("FOIA") protected under Section 52.13(c)(7) of the Commission's rules.[40] GTE believes that such data must be kept confidential because if its competitors had access to GTE's number usage data, they would, in effect, have access to its business plans for various regions of the country. In fact, one of the reasons why a neutral third party must administer the NANP is to protect the confidentiality of such sensitive commercial information. Finally, in order further to

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[39] *NPRM*, ¶ 78.

[40] 47 C.F.R. § 52.13(c)(7). *See* Letter from Ronald R. Connors, Director of NANPA, to Norman Epstein, GTE—Business Development and Integration (Feb. 12, 1999).

protect the confidentiality of their commercial information, carriers should be permitted to submit any data requested by the NANPA on an aggregated basis that summarizes their number utilization and forecasts for a given NPA or CO code.

D. Audits

In order to ensure that carriers are submitting accurate number utilization data, the Commission seeks comment on whether it should impose audit requirements, what types of audits should be utilized, and how frequently the audits should occur.[41] As GTE has previously stated,[42] GTE agrees that audits are a necessary tool to verify that the data that is obtained both in surveys and in applications for codes is accurate. In addition, audits will help the Commission to determine if all parties (both the administrator and the code requestors) are following industry rules and guidelines. As described below, GTE supports audits conducted both for-cause and on a random basis as useful enforcement tools under particular circumstances, but does not believe regularly scheduled audits are cost-effective or necessary.

"For-cause" audits should be conducted in certain circumstances to ensure that industry guidelines are being followed, numbers are not being "warehoused," and that

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41 *NPRM*, ¶¶ 83-88.

42 Comments of GTE on Public Notice, *Common Carrier Bureau Seeks Comment on North American Numbering Council Report Concerning Telephone Number Pooling and Other Optimization Measures*, NSD File No. L-98-134, at 20 (filed Dec. 21, 1998) ("GTE believes that audits should be conducted on carriers in certain circumstances to ensure that industry guidelines are being followed, numbers are not being 'warehoused,' and that surplus numbers are returned to the administrator for reallocation").

surplus numbers are returned to the administrator for reallocation.[43] The need for a "for-cause" audit should be triggered by (but not limited to) the following: (1) an unusual request for numbering resources; (2) a significant variance from the existing forecast submitted by the carrier; or (3) a projected exhaust of an NPA significantly sooner than originally expected. The exact circumstances that will trigger an audit must, however, be clearly described by the industry in a guidelines document. At this point, both the industry and Lockheed Martin agree that the NANPA is contractually responsible for carrying out this type of audit.[44]

GTE also supports random audits as the best means of obtaining industry-wide compliance with the Commission's reporting requirements. While it is not clear how often such random audits should occur, it might be possible to audit certain small, medium, and large companies either on a monthly or yearly basis. Details of how such audits occur should be developed by the industry and then approved by NANC and the Commission. Random audits are not currently contemplated under the NANPA agreement with Lockheed Martin, but Lockheed Martin, as an independent body, could seek to bid for such work.

GTE generally opposes regularly scheduled audits as unnecessary, and, as suggested in the *NPRM*, unduly expensive if performed on every carrier every year.[45]

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[43] The results of an audit can also be useful in identifying ambiguities in guidelines that prevent the industry from achieving its goals.

[44] Minutes of NANC Meeting of June 22-23, 1999, at 21.

[45] *See NPRM*, ¶ 86.

If, however, a regularly scheduled audit is conducted, GTE feels that the audit should be carried out at a very high level and, only if certain predetermined indications emerge, should a more detailed audit be conducted.

The information obtained in any type of audit can be used to support additional requests for numbering resources as well as for the reclamation of numbers should the audit reveal that carrier inventories exceed the quantity recommended. Under no circumstances, however, should a low utilization rate—particularly one resulting from the fact that carriers can only obtain numbers in full NXX blocks—be misconstrued as indicating malfeasance on a carrier's part.

GTE recommends that audits of the NANPA itself should be conducted by an independent auditor. Finally, GTE also believes that state commissions should be strongly encouraged to participate in the INC and NANPA oversight working group that should develop the industry audit guidelines.

E. Enforcement

The Commission further seeks comment on what actions it should take to enhance the enforceability of the number utilization and optimization provisions contained in industry guidelines.[46] GTE endorses the NANC recommendation that the Commission adopt rules requiring NANP resource holders to provide timely and accurate information to the NANPA.[47] Failure to provide this information would then be

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[46] *NPRM*, ¶ 91.

[47] *Number Resource Optimization Working Group Modified Report to the North*
(Continued...)

a violation of the Commission's rules, and the Commission would be empowered to sanction the violator. In cases where the NANPA initiates an enforcement action, carriers would be permitted to appeal the NANPA's decision to the Commission. The sanction for noncompliance with the numbering guidelines should be a withholding of numbering resources by the NANPA until the service provider submits the required information.[48]

Input is also sought regarding the appropriate allocation of number administration enforcement responsibilities between the NANPA, the FCC, and state regulators.[49] GTE believes that the NANPA should be empowered to withhold NXX codes as a sanction for violation of the CO Code Guidelines, especially where the violation involves failure or refusal to supply accurate and complete utilization or forecast data. The criteria that constitute "failure or refusal to supply accurate and complete utilization or forecast data," however, need to be clearly identified so that such sanctions are carried out in an impartial manner. GTE therefore recommends that the INC develop such criteria, to be applied on a consistent, impartial basis.

Regarding federal-state jurisdiction, pursuant to Section 251(e)(1), the Commission must continue to exercise its plenary jurisdiction over numbering resources in the United States and set forth nationwide, uniform rules regarding telephone number

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(...Continued)
American Numbering Council on Number Optimization Methods at 157 (Oct. 21, 1998) ("*NANC Report*").

[48] Minutes of NANC Meeting of November 18-19, 1998 at 10.

[49] *NPRM*, ¶¶ 92-94.

optimization. Such nationwide uniformity is particularly important to carriers such as GTE, which serve multi-state areas and would find it difficult to conduct its business in the face of multiple, inconsistent state regulation of numbering resources and enforcement of numbering policies. In particular, in order to reap the benefits of economies of scope and scale, multistate carriers deploy the same switching equipment and software in different states, and, as such, require nationwide numbering and enforcement standards.

Having promulgated such nationwide rules, the FCC can then delegate responsibility to the states to implement area code relief plans that are consistent with the FCC's regulations. This division of authority will result in the use of area code relief plans that are custom tailored to local conditions within the context of the national policy.

Against this background, GTE is concerned that Chairman Kennard, in response to a number of pending state petitions for additional authority,[50] has indicated too great

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[50] *See* Public Notice, *Common Carrier Bureau Seeks Comment on California Public Utilities Commission and the People of the State of California for Delegation of Additional Authority pertaining to Area Code Relief and to NXX Code Conservation Measures*, NSD File No. L-98-136, DA 99-928 (rel. May 14, 1999); Public Notice, *Common Carrier Bureau Seeks Comment on a Petition of the California Public Utilities Commission and the People of the State of California for a Waiver to Implement a Technology-Specific or Service-Specific Area Code*, NSD File No. L-99-36, DA 99-929 (rel. May 14, 1999); Public Notice, *Common Carrier Bureau Seeks Comment on Florida Public Service Commission's Petition for Additional Authority to Implement Number Conservation Measures*, NSD File No. L-99-33, DA 99-725 (rel. April 15, 1999); Public Notice, *Common Carrier Bureau Seeks Comment on Maine Public Utilities Commission's Petition for Additional Authority to Implement Number Conservation Measures*, NSD File No. L-99-27, DA 99-638 (rel. April 1, 1999); Public Notice, *Common Carrier Bureau Seeks Comment on New York Department of Public Service*

(Continued...)

a willingness to delegate responsibility for implementing area code relief measures to the states, thereby inviting the type of inconsistent, state-by-state regulation that GTE opposes.[51] While GTE agrees with the Chairman that there must be a federal-state partnership in promulgating numbering policies, the FCC, not the states must play the lead role in this partnership. Any other division of authority will destroy the uniformity of the NANP, to the detriment of telecommunications carriers and their customers. Therefore, the Commission should not take action on the pending state petitions that will limit or impede any federal policies arising out of the instant proceeding, which is fully and comprehensively examining the very issues raised by these state petitions.

F. Reclamation and Reservation of NXX Blocks

GTE supports providing the NANPA with the ability to reclaim numbers per industry guidelines. Accordingly, the Commission should adopt rules to give the

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Petition for Additional Authority to Implement Number Conservation Measures, NSD File No. L-99-21, DA 99-462 (rel. March 5, 1999); Public Notice, *Common Carrier Bureau Seeks Comment on Massachusetts Department of Telecommunications and Energy Request for Additional Authority to Implement Various Area Codes Conservation Methods in the 508, 617, 781, and 978 Area Codes*, NSD File No. L-99-19, DA 99-461 (rel. March 5, 1999).

[51] According to press reports, in his remarks before NARUC, Chairman Kennard stated that a "crisis" exists in numbering, and the FCC is "going to do something very smart," and "let the states solve this problem." As the first step, the Chairman stated that, by the end of the summer, the FCC will probably grant pending petitions from six states for expanded authority to address NPA exhaust. *See* Telecom AM, reporting on the remarks of William E. Kennard, Chairman, FCC, before the National Association of Regulatory Utilities Commissioners on July 19, 1999.

NANPA the power to conduct such reclamations. The CO Code guidelines should clearly state that the NANPA has the authority to recover these codes

GTE opposes the Commission's proposal to alter the current reclamation provisions to require NANPA to initiate code reclamation within 60 days of the expiration date of the assignee's applicable activation deadline.[52] Similarly, the Commission should not shorten the reservation period from 18 months to 90 days because reserving codes allows carriers to prepare for the initiation of service.[53] Reduction of this time frame could force carriers to undergo the added administrative burden of filing multiple requests. In the same vein, GTE disagrees with the proposal to reduce the length of extensions from six months to 30 days. The existing time frames were developed through industry consensus and account for the length of time it takes to turn up switching capability and complete interconnection agreements. Even if the time frames are reduced, because it is impossible to determine ahead of time all the situations that might cause a carrier to miss a date, the NANPA needs to have the flexibility to provide some limited extension capability beyond 30 days.

The Commission should not delegate CO code reclamation authority to state commissions as it has proposed to do.[54] Instead, the reclamation process should be within the purview of the NANPA based on its technical expertise and ability to review

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52 *See NPRM*, ¶ 99.

53 *See NPRM*, ¶ 99.

54 *See NPRM*, ¶ 100.

company reports. The states should not be directly involved in the reclamation process because such state involvement will result in code reclamation policies that are not consistent from state to state.

IV. OTHER NUMBERING OPTIMIZATION SOLUTIONS

A. Non-LNP-Based Solutions

1. Rate center consolidation

Noting that Rate Center Consolidation ("RCC") is a vitally important long-term measure to optimize the utilization of numbering resources, the FCC seeks comment on ways in which it may create incentives for state commissions and local exchange carriers to pursue this measure more aggressively.[55] Preliminarily, GTE agrees with the FCC that RCC is a valuable code optimization measure. In particular, because RCC limits the number of NXX codes new carriers require to compete, it can provide a significant increase in NXX code availability in geographic areas that contain multiple rate centers and several carriers.

Unfortunately, at least two states—Minnesota and Arizona—that first implemented RCC also wanted to maintain seven-digit dialing. To provide more telephone numbers while maintaining such seven-digit dialing, these states ultimately ordered area code splits that divided the rate centers, thereby squandering new NPAs, making optimization techniques useless, and creating the need for carriers to obtain

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[55] *NPRM*, ¶¶ 106, 116.

additional NXX codes. This perspective squanders NPAs and makes many optimization techniques useless.

The Commission should at this time encourage the use of RCC by ordering nationwide ten-digit dialing. This would promote number conservation, create a standard dialing plan throughout the country, and facilitate the implementation of other NANP extending options. Beyond the issue of ten-digit dialing, however, it is important to note that the final decision on local RCC implementation should remain under the authority of state commissions because of the impact on local rates, intercarrier compensation, and calling patterns.

The Commission also seeks comment on how to ensure that rate center consolidation does not adversely impact 911 systems, in particular the default routing of 911 calls.[56] GTE has completed RCC in a number of states without having a major impact on the 911 systems in these states. That being said, any state commission that supervises a rate center consolidation must be aware of the possible adverse impacts of RCC on 911 service and plan the consolidation accordingly.[57] In addition, the FCC should direct NANC to work with the National Emergency Numbering Association

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[56] *NPRM*, ¶ 121.

[57] It is also important to note that, in addition to RCC, the general conversion to a competitive environment impacts 911 systems. In the past, direct trunks from each end office to the Public Safety Answering Point ("PSAP") were often used to provide 911 access. With the expansion of competition, direct trunk arrangements are being converted to tandem configurations using selective routers.

("NENA") to provide planning guidelines for the implementation of RCC to avoid any negative impact on 911 calls.

2. Mandatory ten-digit dialing

Regarding mandatory ten-digit dialing, the Commission seeks further information on any technical problems and costs associated with this measure, and whether it should adopt rules requiring ten-digit dialing on a nationwide basis.[58] As described below, GTE believes that there are both theoretical and practical reasons why mandatory ten-digit dialing is an extremely important number optimization technique that can be implemented quickly and with minimal inconvenience to the American public. The Commission therefore should act promptly to mandate 10-digit dialing throughout the United States.

The NANP is in fact a ten-digit dialing plan, where each line is uniquely identified by a ten-digit number. Therefore, requiring this dialing pattern is entirely consistent with the design of the NANP.

As a matter of practical experience, GTE has implemented ten-digit dialing and overlays in a number of NPAs throughout its operating territories, and has learned a number of lessons from this experience. First, GTE has found it to be very important to provide a customer education period in advance of the transition to ten-digit dialing that explains what is happening and why. This educational program should be targeted to

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[58] *NPRM*, ¶¶ 125-126.

segments of the population that may need additional help in growing accustomed to new dialing patterns.

Second, implementing optional ten-digit dialing ahead of a mandatory schedule allows for an easier transition. To facilitate customer education and to simplify dialing for its customers, GTE has already implemented optional ten-digit dialing in a majority of its switches and operating territories. Taking this step in advance of required ten-digit dialing allows companies and customers to begin changing their CPE to facilitate ten-digit dialing.

Finally, the technical challenges associated with the implementation of ten-digit dialing are not as daunting as they might seem at first glance. In particular, once a carrier has implemented an overlay in one region in which it operates, it will have already completed the modifications to its operating systems necessary for ten-digit dialing. While changes to a carrier's databases and announcement systems are required, the impact is not any greater than would be required for an area code split. Further, with the large number of area code splits, most directories are already required to print multiple NPAs and therefore this is not a major change. Ultimately, however, it has been GTE's experience that with an extensive customer education program, carriers will experience very few customer complaints in areas with mandatory ten-digit dialing.[59]

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[59] In GTE's experience, CPE owned by alarm companies represents the most problematic hardware. While many newer systems can be reprogrammed remotely, some of the older systems do require site visits to correct the problem.

Against this background, GTE agrees with the INC's conclusion that ultimately all calls will and should be dialed on a ten-digit basis.[60] GTE therefore encourages the FCC to mandate nationwide ten-digit dialing so that all carriers and customers are treated in a uniform fashion. Specifically, GTE supports the implementation of mandatory ten-digit dialing in the top 100 MSAs within one year of the release of an FCC order on this subject. Ten-digit dialing should be required in the remaining geographic areas within five years of the release of the pertinent FCC order.

3. D digit expansion

The Commission seeks further comment on the costs and benefits of expanding the D digit, and on whether it should mandate the adoption of this measure at the national level to ensure its effectiveness.[61] The major benefit of opening the D digit is an increase of 25 percent in the quantity of available numbers in each area code, thereby relieving to some extent jeopardy situations and bringing additional life to existing area codes. The cost of opening the D digit is currently being studied by the INC (issue 159). While the exact cost is still unknown, one obstacle to the release of the D digit is the unauthorized uses that have been adopted by the industry for this digit over the years. As a result of these unauthorized uses of the D digit, the issue is being studied in the INC NANP Expansion Workshop. This study will determine if it is

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[60] *See* Industry Numbering Committee (INC) Uniform Dialing Plan, INC 97-0131-017, § 6.0 (reissued July 1998).

[61] *NPRM*, ¶¶ 127-128.

possible to continue to support these existing applications by assigning a small subset of D digit codes to accommodate these uses but still have the great majority of the D digit codes opened for normal number assignment purposes.

If the INC resolves these issues, and assuming the FCC opts in favor of D digit expansion, this measure should only be implemented on a national basis. In addition, D digit expansion requires ten-digit dialing. If the D digit is released in only certain states or only for certain service providers, the public will have difficulty dialing numbers in such a non-uniform environment. In addition, many of the technical issues surrounding D digit expansion transcend state and NPA borders. Therefore, D digit release must be resolved on a nationwide basis.

B. LNP-Based Solutions: Number Pooling

The *NPRM* requests comment on the potential costs and benefits of three specific number pooling methods: (1) allocation of numbers in blocks of one thousand (thousand-block pooling); (2) individual telephone number ("ITN") pooling; and (3) unassigned number porting ("UNP"). GTE supports the introduction of thousand-block number pooling for wireline carriers where it can be determined that there is a significant extension of the NPA life as a result of pooling. As discussed below, GTE does not support any type of pooling for wireless carriers. With respect to ITN pooling, it is not necessary to break 10,000 number blocks down to the individual number level at this time. This is especially true given that it will probably take at least four to six years to develop specifications for ITN pooling and implement such specifications.

Further, devoting industry resources to the implementation of ITN pooling at this time will detract from the implementation of thousand-block pooling.

GTE has many concerns with the UNP concept but is prepared to have the industry address these concerns so that, at a minimum, UNP can be defined. Since it was first described in Pennsylvania, UNP has gone through multiple iterations. Specifically, UNP was originally described as a methodology to be used solely in a jeopardy situation when carriers could only obtain numbers for their customers by transferring them under a UNP pretext. Currently, UNP is being described as a technique to be used at any time to obtain numbers from another carrier's inventory. The INC has just begun to study this concept and many questions and issues have been raised. Once a report on the subject is completed, it will be possible to give a clearer evaluation of the latest version and practicality of this concept.

Comment is also sought on the relationship between number pooling and RCC.[62] GTE believes that there is a direct relationship between the benefits of number pooling and RCC in that, where there are many rate centers, many separate numbering pools would be required. This will make pooling more expensive to administer and the result will be less efficient than a combined rate center numbering pool. Therefore, in order to promote the concept of pooling in areas where pooling would prove beneficial, the FCC should give states the discretion to mandate thousand-block number pooling for wireline carriers in areas where rate center consolidation had already occurred. In fact,

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62 *NPRM*, ¶ 120.

the INC guidelines currently set forth procedures for rate center consolidation after pooling has already been initiated.

1. Thousand-block number pooling represents a superior pooling alternative for wireline carriers

The Commission has tentatively concluded that thousand-block number pooling "is an important numbering resource optimization strategy that is essential to expanding the life of the NANP" in areas where the benefits exceed the costs.[63] GTE agrees with the Commission's goal of implementing thousand-block pooling for wireline carriers in areas where the benefits of pooling outweigh the associated costs. The challenge, of course, is to determine which factors/criteria are those that can be used to make this determination. In this regard, GTE proposes that part of any decision to implement pooling in a given location is that a study be conducted, as is the case today. This study would be based upon the existing thousand-block utilization data and the forecast projections from carriers that have been requested in many states.

GTE recommends that, prior to implementation of thousand-block pooling, the results of the analysis of this data should show that this method would increase the life of a given NPA by at least five years. The five-year time frame is the period of time used in planning NPA relief. Therefore, if thousand-block pooling can extend an NPA's life by this planning period, then it will truly be a beneficial endeavor. In terms of costs, pooling should be implemented if the cost savings in putting off relief by five years

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63 *NPRM*, ¶ 138.

would outweigh the costs of pooling. However, if the study instead finds that thousand-block pooling costs are higher than the cost savings, then the policy would not pass the cost-benefit test and should be rejected. Of note, currently the industry can only guess at the cost of pooling since the cost of pooling administration; the cost to port pooled numbers, including but not limited to modification of databases (*e.g.*, NPAC/SMSs, LSMSs, service control points, and network switches) and database operational costs (*e.g.*, NPAC/SMSs); the cost of additional queries resulting from pooling; or the costs to upgrade internal operation support systems to accommodate pooled inventories and other procedures as a result of pooling implementation are unknown.

2. Individual telephone number pooling and unassigned number porting are problematic

The Commission tentatively concluded not to pursue individual telephone number pooling given the early state of development of technical standards and administrative guidelines.[64] GTE agrees that ITN pooling should not be pursued at this time for multiple reasons. First, the Commission is correct in its assessment that the state of development of technical standards and administrative guidelines for ITN pooling is not advanced. The industry has agreed that it will take at least four to six years to develop the appropriate standards and guidelines for ITN pooling. Any effort to develop ITN pooling standards and guidelines will only detract from the needed refinement of thousand-block pooling implementation. Second, the industry has not

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64 *NPRM*, ¶ 141.